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**Remarks**

Reconsideration of this application is requested. By this response to the Office Action dated September 20, 2005, claim 18 was amended. A listing of claims 1-3 and 17-19 that remain in the application is included in this amendment.

**Response to the 35 U.S.C. §112 Rejection**

The Office Action rejected claims 1-3 and 17-19 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Specifically, the Office Action states that the subject matter was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors had possession of the claimed invention.

**Support for Applicant's claim 1 - PORTION 1**

A first portion of Applicant's claim 1 recites receiving modulated data by an antenna.

The specification on page 2, lines 17-18, discloses that information received from an antenna from multiple users in multiple protocols is demodulated. Thus, this portion of Applicant's claim 1 is certainly supported.

**Support for Applicant's claim 1 - PORTION 2**

A second portion of Applicant's claim 1 recites configuring a first datapath from several predefined configurations to receive the modulated data from the antenna, wherein the configuration selected for the first datapath corresponds to a protocol of the received modulated data.

The specification on page 2, lines 19-21, discloses that a protocol to be demodulated is determined and a reconfigurable datapath for the system is configured for that protocol.

Also the specification on page 3, lines 9-17, discloses a system for demodulating data in a plurality of protocols for multiple users. An input buffer receives antenna data that a reconfigurable datapath then operatively demodulates. A controller configures the

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datapath for each protocol after an output buffer stores the data following demodulation. Thus, Applicant's second portion of claim 1 is certainly supported.

**Support for Applicant's claim 1 - PORTION 3**

A third portion of Applicant's claim 1 recites configuring a second datapath from the several predefined configurations to receive the modulated data from the antenna, wherein the configuration selected for the second datapath corresponds to a protocol of the received modulated data.

The specification on page 2, lines 21-22, discloses that the data for each of the users is read from the input buffer (the input buffer is coupled to the antenna, see FIG. 1), demodulated by the datapath, and stored in an output buffer. The disclosure of multiple datapaths is illustrated in FIG. 2. Each datapath is capable of being configured for a protocol of the received modulated data as taught in the specification on page 9, lines 1-17. The specification discloses that multiple demodulation systems may be used to facilitate demodulation of the data, where each demodulation system includes a controller, a reconfigurable datapath, and an output buffer. A prescribed number of users may be allocated to each of the demodulation systems. Thus, Applicant's third portion of claim 1 that calls for a second datapath from the several predefined configurations to receive the modulated data from the antenna, wherein the configuration selected for the second datapath corresponds to a protocol of the received modulated data is certainly supported.

**Support for Applicant's claim 1 - PORTION 4**

A fourth portion of Applicant's claim 1 recites operating the first and second datapaths in parallel to demodulate the received modulated data of multiple users.

The specification on page 9, lines 15-17, discloses demodulation systems 50(a), 50(b), ..., and 50(n), where each of the demodulation systems include a controller, reconfigurable datapath and an output buffer. Applicant teaches that the demodulation systems may operate in parallel to demodulate the signals of multiple users. Thus, Applicant's fourth portion of claim 1 is certainly supported.

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Applicant's claim 1 is fully supported by the specification and the rejection under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement should be removed.

**Support for Applicant's claim 2**

Applicant's claim 2 recites using a first controller to provide the configuration selected for the first datapath. Configuring the second datapath includes using a second controller to provide the configuration selected for the second datapath.

The specification on page 9, lines 1-17, discloses that multiple demodulation systems may be used to facilitate demodulation of data, where each demodulation system includes a controller, a reconfigurable datapath and an output buffer. As taught in this paragraph of the specification and fully illustrated in FIG. 2, a first controller provides the configuration selected for the first datapath and a second controller provides the configuration selected for the second datapath. Thus, Applicant's claim 2 is fully supported and the rejection under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement should be removed.

**Support for Applicant's claim 3**

Applicant's claim 3 recites using a first output buffer coupled to the first datapath and a second output buffer coupled to the second datapath to store data for the multiple users.

FIG. 2 shows the features described in Applicant's claim 3, showing output buffer 60(a) coupled to reconfigurable datapath 56(a) and output buffer 60(b) coupled to reconfigurable datapath 56(b). The specification on page 9, lines 1-17, provides support for claim 3 by disclosing the multiple demodulation systems 50(a), 50(b), ..., and 50(n), and teaching that each demodulation system has their own controller, reconfigurable datapath and output buffer. Thus, Applicant's claim 3 is fully supported and the rejection under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement should be removed.

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**Support for Applicant's claim 17**

Applicant's claim 17 recites a system for demodulating signals comprising:  
an antenna;  
first and second datapaths coupled to the antenna; and  
a first controller to select a protocol and configure the first datapath to accept modulated data from the antenna and provide demodulated data in accordance with the protocol and a second controller to configure the second datapath to operate in parallel with the first datapath.

FIG. 2 also shows the features described in Applicant's claim 17 that shows an antenna 52 coupled to reconfigurable datapaths 56(a), 56(b), ..., and 56(n). Each of the multiple demodulation systems 50(a), 50(b), ..., and 50(n), has their own controller, reconfigurable datapath and output buffer. Thus, Applicant's claim 17 that recites a first controller to select a protocol and configure the first datapath to accept modulated data from the antenna and provide demodulated data in accordance with the protocol is fully supported. Also, Applicant's claim 17 that recites a second controller to configure the second datapath to operate in parallel with the first datapath is fully disclosed in the specification on page 9, lines 15-17. Applicant discloses that the demodulation systems may operate in parallel to demodulate the signals of multiple users. Thus, Applicant's claim 17 is fully supported by the specification and the rejection under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement should be removed.

**Support for Applicant's claim 18**

Applicant's claim 18 recites including an input buffer to store the data received by the antenna and provide the data to the first datapath and to the second datapath.

FIG. 2 illustrates a first input buffer 54 for storing the data received by the antenna that is provided to the first datapath 56(a) and to the second datapath 56(b). The specification on page 8, lines 16-21, provides support for claim 18 by disclosing that the multiple demodulation systems 50(a), 50(b), ..., and 50(n) are arrayed in parallel. Applicant teaches that each of the demodulation systems is connected to receive data

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from the antenna 52 as stored in input buffer 54. Thus, Applicant's claim 18 that recites an input buffer to store the data received by the antenna and provides the data to the first datapath and to the second datapath is fully supported. The rejection of claim 18 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement should be withdrawn.

#### **Support for Applicant's claim 19**

Applicant's claim 19 recites including a first output buffer for storing the demodulated data from the first datapath and a second output buffer coupled to the second datapath.

The specification on page 9, lines 15-17, discloses demodulation systems 50(a), 50(b), ..., and 50(n), where each demodulation system includes a controller, a reconfigurable datapath and an output buffer. FIG. 2 illustrates a first output buffer 60(a) for storing the demodulated data from the first datapath 56(a) and a second output buffer 60(b) coupled to the second datapath 56(b). Applicant teaches that each demodulation system includes an output buffer for storing the demodulated data from the datapath, and therefore, first and second output buffers for storing the demodulated data from the respective first and second datapaths is fully supported and Applicant's claim 19 is supported. The rejection of claim 19 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement should be withdrawn.

By now it should be clear that the subject matter of Applicant's claims 1-3 and 17-19 is not new subject matter but included in the specification as originally filed on December 19, 2000. The specification clearly describes the features and limitations set forth in the claims and the drawings clearly illustrate the claimed subject matter. The rejection of Applicant's claims under 35 U.S.C. §112, first paragraph, should be withdrawn.

#### **Response to the 35 U.S.C. §103(a) Rejection**

The Office Action rejected claims 1-3 and 17-19 under 35 U.S.C. §102(e) as being unpatentable over Brown et al. (U.S. Patent No. 6,650,694) in view of Kameno et al. (U.S. 6,282,234).

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**Claims 1-3**

Applicant's amended claim 1 recites, among other things, operating first and second datapaths in parallel to demodulate the received modulated data of multiple users.

Brown et al. teach in FIG. 1 a correlator co-processor 100 having a configurable data path 300 that performs various functions based on a configuration supplied from configuration tables 160. The correlator co-processor 100 performs correlations and accumulations to handle all RAKE and searcher operations. Brown teaches in column 6, lines 35-64, that the correlator co-processor 100 is a multi-tasking machine that can handle 7 tasks. These tasks include (1) a finger task, (2) a delay profile estimation task, (3) a primary search code search task, (4) a secondary search code search, (5) a long code identifier search task, (6) a paging indication channel de-spreading task, and (7) an access search.

Whereas Applicant's claim 1 recites operating the first and second datapaths in parallel to demodulate the received modulated data of multiple users, Brown et al. neither illustrate in the figures nor teach in the specification that first and second configurable datapaths may operate in parallel. The Examiner relies on the prior art reference of Kameno et al. to disclose operating first and second datapaths in parallel to demodulate the received modulated data of multiple users.

Applicant's claim 1 calls for configuring a first datapath from several predefined configurations to receive the modulated data from the antenna, and further, configuring a second datapath from the several predefined configurations to receive the modulated data from the antenna. Applicant respectfully points out to the Examiner that the Kameno et al. reference is not sufficient to describe Applicant's claim 1 for several reasons, even when that reference is combined with the Brown reference.

First, Kameno et al. teach in column 6, lines 1-18 that the radio section 12 takes a radio signal received by an antenna 11, amplifies that signal, and frequency converts that signal to obtain a baseband signal 10. Whereas Applicant's claim 1 recites that the first and second datapaths operate in parallel to demodulate the received modulated

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data of multiple users, Kameno et al. teach that radio section 12 demodulates the received signal to a baseband signal.

Second, the Examiner states that the elements 14-2 and 16-2 correspond to Applicant's claimed reconfigurable datapaths. Note that the DLL in element 14-2 is a Delay Locked Loop that operates in the dispreading process to accommodate different phase differences in the multipath input signals. The DLL (element 14-2) and the buffer section (element 16-2) are not reconfigurable datapaths, but rather selectable paths in the multipath environment. The path search section 13 searches the baseband signal 10 and detects a peak position in each path that the buffer sections true up for adding in the rake 19.

Accordingly, the relied upon references of Brown et al. combined with Kameno et al. cannot anticipate Applicant's claim 1 and it is believed that the 35 U.S.C. §103(a) rejection should be removed.

The dependent claims 2 and 3 are believed allowable over the art of record for at least the same reasons as Applicant's base claim 1.

#### **Claims 17-19**

Applicant's amended claim 17 recites, among other things, a first controller to select a protocol and configure the first datapath to accept modulated data from the antenna and provide demodulated data in accordance with the protocol and a second controller to configure the second datapath to operate in parallel with the first datapath.

In contrast to Browns' correlator co-processor 100 only responsive for CDMA processing and Kameno spread spectrum receiver only responsive to CDMA signals, these references taken either singularly or in combination, do not teach Applicant's first controller to select a protocol and a second controller to configure the second datapath. Brown and Kameno only receive signals in accordance with the CDMA protocol, and therefore, the combination of these references does not include a controller to select a protocol. Since the combination of these references do not teach this claimed feature, the relied upon art cannot anticipate Applicant's claim 17.

Applicant's claims 18 and 19 depend from base claim 17 and are believed to be allowable over the art of record for at least the same reasons as Applicant's claim 17.

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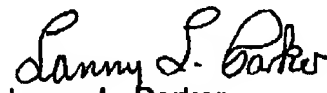
**Conclusion**

The foregoing is submitted as a full and complete response to the Office Action mailed September 20, 2005, and reconsideration of the rejections is requested. It is submitted that claims 1-3 and 17-19 are now in condition for allowance. Allowance of these claims is earnestly solicited.

Applicants herewith petition the Director of the United States Patent and Trademark Office to extend the time for response to the Office Action dated September 20, 2005, for 3 months. Please charge Deposit Account #50-0221 in the amount of \$1020.00 for a three month extension. Should it be determined that an additional fee is due under 37 CFR §1.16 or 1.17, or any excess fee has been received, please charge that fee or credit the amount of overcharge to deposit account #50-0221.

If the Examiner believes that there are any informalities that can be corrected by an Examiner's amendment, a telephone call to the undersigned at (480) 715-5388 is respectfully solicited.

Respectfully submitted,  
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